BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF DELAWARE

IN THE MATTER OF THE COMMISSION'S CONSIDERATION OF THE "INTERCON-NECTION" STANDARD SET FORTH IN 16 USC § 2621 (d) (15) RELATED TO THE INTERCONNECTION OF CUSTOMER-OWNED GENERATION TO UTILITY DISTRIBUTION FACILITIES (OPINED JULY 11, 2006)	))))))))	PSC REGULATION DOCKET No. 58

COMMENTS OF
DELMARVA POWER AND LIGHT COMPANY

Delmarva Power & Light Company ("Delmarva"), hereby offer its comments in response to Order No. 6983 ("Order") issued by the Public Service Commission of the State of Delaware ("Commission") on July 11, 2006. The Order invited interested persons and entities to file comments in response to the questions posed in paragraph 4 of the body of the Order. Delmarva's comments are set forth below.

Question A.

Should the Commission revisit and reexamine the "interconnection protocols" previously published by DP&L and DEC (see n. 6 above)? If you believe that re-examination is not necessary, please explain why such protocols remain appropriate? Also please explain whether such earlier protocols would constitute "prior State action" under 16 U.S.C. §2622(f)(1) or whether the Commission would need to take further action to utilize such provisions' "safe harbor" from further consideration?

Answer A

Delmarva is of the view that there is no need for the Commission to revisit and re-examine the "interconnection" protocols previously published by the Company. The Delmarva document "Technical Considerations Covering Parallel Operation of Customer Owned Generation of Less than One (1) Megawatt" ("Technical Considerations < 1 MW") published by the Company in 2000 is current and consistent with IEEE 1547 and with the technical requirements of the PJM Interconnection, LLC's ("PJM") Small Generator Interconnection "Applicable Technical Requirements and Standards" ("PJM Standards") for generators 2MW and less. The PJM Standards are based upon IEEE 1547.

Moreover, Delmarva's document, Technical Considerations < 1 MW, is the product of a process based upon the Commission's request in 1999 that the Delaware utilities develop such a tariff and interconnection standards for net energy metering (NEM, 25 kW and less). This document was produced by a working group including Commission Staff, Delmarva technical experts, and members of consortium of distributed generation equipment providers.

Question B.

Do the provisions of the "Electric Utility Retail Customer Supply Act of 2006" (75 Del. Laws ch. 242, April 6, 2006) provide any guidance on how the Commission should approach or resolve issues relate to interconnection of customer-owned generation to DP&L's and DEC's distribution facilities?

Answer B

The Electric Utility Retail Customer Supply Act of 2006 does not address interconnection.

Question C.

If the Commission should revisit interconnection protocols and processes, should the Commission utilize any of the existing models as a "straw" proposal for Delaware interconnection standards?

i. If so, please describe which model should be chosen and why it is superior to other models for use in Delaware?

ii. In particular, please evaluate the MADRI model against the processes, standards, and agreements proposed by PJM (including its streamlined procedure for 2 MW or less resources).

Answer C

Delmarva's position is that there is no need for the Commission to revisit and re-examine the "interconnection" protocols previously published by the Company. However, should the Commission decide to do so, Delmarva contends that no single existing model is adequate or appropriate to be used as a "straw" proposal for Delaware interconnection standards. The following discussion provides background and specific issues which must be resolved before IEEE 1547 or the PJM Standards could be considered for use as a "straw" proposal for Delaware interconnection standards.

1. IEEE 1547 and PJM Small Generator Interconnection Standards

In July 2003, IEEE published *IEEE Standard 1547 for Interconnecting Distributed Resources with Electric Power Systems* ("IEEE 1547") which applies to generators of less than 10 MVA. The stated intention of IEEE 1547 is to provide a uniform standard for interconnection of distributed resources with electric power systems. It includes requirements relevant to the

performance, operation, testing, safety considerations, and maintenance of the interconnection. During May 2004, the PJM began developing the PJM Standards for generators less than 2 MW, which were aligned with IEEE 1547. The PJM Standards were established in December of 2004 and are consistent with the FERC-approved tariffs. Delmarva's present technical interconnection standards are consistent with IEEE 1547 and the PJM Standards.

2. Delmarva Comments Regarding the PJM Standards

The PJM Standards are generally in compliance with technical specifications of IEEE 1547. However, individual PJM transmission owners specified their own protection, telemetry and metering technical requirements that were not specifically set forth in IEEE 1547. In addition, the PJM Standard clarified some of the technical issues in IEEE 1547 that were subject to varied interpretation. [Note – PJM this year adopted Tariff changes in response to FERC Order 2006 and added a "super expedited" sub-procedure for generators 2 MW and less.

3. Delmarva Comments Regarding IEEE Standard 1547

Delmarva's technical interconnection standards are consistent with the PJM Standards as described above. However, the Companies note that IEEE 1547 is not comprehensive regarding interconnection technical requirements and would be insufficient as the sole basis for a Delaware interconnection standard. Specifically,

- IEEE's system protection requirements for interconnecting generators are not sufficiently clear and detailed, possibly leading to misinterpretation.
- IEEE 1547 does not address who is responsible for paying the costs of the interconnection of generators.

- IEEE 1547 is silent as to what electric system changes may be required as a result of interconnection of generation.
- IEEE 1547 is also silent in outlining administrative procedures, processes and timeframes for handling interconnection applications.
- The monitoring, metering and control of interconnected generation are not specified in IEEE 1547.
- Some of the technical details are unclear and subject to interpretation.

Therefore, Delmarva suggest that IEEE 1547 is inadequate and inappropriate to be used by the Commission as a "straw" proposal for Delaware interconnection standards.

4. Delmarva Comments Regarding the MADRI Small Generator Interconnection Procedures

In 2004, the MADRI Interconnection Subgroup began developing a document setting forth the MADRI model for small generator interconnection procedures for facilities in parallel with the electric distribution company. The document was developed to be consistent with the PJM Standards. The technical interconnection requirements in the PJM Standards will apply under the MADRI Procedures if an interconnection agreement with PJM is required. In November 2005, MADRI published its *MADRI Model Small Generator Interconnection Procedures* ("MADRI Procedures") document covering small generation interconnection procedures and interconnection agreements.

Additionally, the MADRI document implements the established Federal Energy Regulatory Commission procedures used in evaluating customer generation projects. (Docket No. RM02-12-000, Order No. 2006: "Standardization of Small Generator Interconnection

Agreements and Procedures." Issued May 12, 2005). Should a customer elect to interconnect their generator under the MADRI Procedures and later decide to participate in the PJM market, the generator will then be subject to PJM rules and regulations. The PJM Standards are included as Attachment H in PJM Manual 14 B.

Taken by themselves, the MADRI Procedures are not sufficiently comprehensive, detailed, or reflective of industry best practice. These problems are compounded by the fact that the MADRI Procedures were published with many inconsistent and misleading comments by various parties. The MADRI Procedures as released on November 25, 2005 contain contradictory recommendations which must be resolved before any useful interconnection technical guidelines can be implemented based on the MADRI Procedures. There are many specific technical issues which must be addressed before it would be appropriate for the Commission to adopt the MADRI Procedures as a "straw" proposal for developing interconnection procedures in Delaware. Using the MADRI Procedures as presently constituted for the basis for Delaware interconnection procedures could lead to damage to interconnection customers' equipment or to the electric distribution system, and could needlessly expose the public and the Companies' employees to added safety risks.

Question D.

Should the Commission adopt a certain MW ceiling to apply to an interconnection standard to State-jurisdictional distribution facilities: If so, what should be that limit, and should the limit differ for each particular utility?

Answer D

Delmarva believes that any interconnection standard should be one that provides the maximum likelihood of maintaining the safe and reliable operation of the utility's distribution system. Therefore, any interconnection standard should be based on established operating principles and procedures for the utility in question.

As a practical matter, on a state-jurisdictional (non-PJM Market) up to 3 MW on a 12kV circuit and up to 6 MW on a 25kV circuit appear to be effective respective generator size limits for the Delmarva system. Generators larger than this would probably require extensive circuit upgrades or the installation of a dedicated circuit. In addition, larger units would probably be selling into the PJM market and thus the PJM Standards would apply rather than the Delaware State-jurisdictional standard.

Regardless of any size limit, any approved Delaware state standard must provide all the necessary technical requirements and acceptable administrative rules needed for safe and reliable interconnected operation.

Question E.

If revisiting is in order, what process would be the most efficient way for the Commission to proceed?

i. In particular, should the Commission defer its proceedings for a time to await actions by neighboring jurisdictions considering similar interconnection protocol standards? Can this be structured consistent with the PURPA procedural requirements?

ii. If an immediate process is appropriate, how should that be structured consistent with the PURPA procedural requirements?

Answer E

If the Commission decides to revisit the interconnection protocols previously established by Delmarva and DEC, then the Company suggests that the most efficient process would be based upon the Commission's establishing a working group of technical experts from Delmarva, DEC, Commission Staff and other interested parties to explore the technical and procedural issues pertaining to interconnection standards for Delaware electric distribution systems.

Although awaiting the results of proceedings in neighboring jurisdictions may afford the Commission some insights into technical and other interconnection issues, electric system design, configuration and operational processes differ from utility to utility and from state to state. Therefore, the results of work on these issues in other states may not be directly applicable to Delaware. A Delaware-specific working group would focus on Delaware State-jurisdictional electric systems and therefore avoid this problem.

Question F

Would it be more efficient to have DP&L and DEC initially submit re-worked documents and use those as "straw-men" for continued consideration of the PURPA standard? Similarly, should the Commission strive for a single interconnection standard and process or do differences exist between the two jurisdictional utilities that call for different interconnection protocols?

Answer

As discussed above, if the Commission decides to revisit the interconnection protocols previously established by Delmarva and DEC, then the Company suggests that the most efficient Process would be the Commission's establishment of a working of technical experts from

Delmarva, DEC, Commission Staff and other interested parties to explore the technical and procedural issues pertaining to interconnection standards for Delaware electric distribution systems. This group would formulate recommendations to the Commission based upon the determination of the soundest approach to the technical and procedural issues concerning interconnection standards for Delaware electric distribution companies.

Respectfully submitted,

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CERTIFICATE OF SERVICE

I hereby certify that on this 25th day of August, 2006, copies of the foregoing pleading were served via first class mail and email on the following:

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